ABSTRACT OF THE DISCLOSURE

If a service brake fails while a vehicle is running, when the driver depresses an operation switch to issue an operation command to a parking brake to brake the vehicle, the parking brake is controlled such that the vehicle is decelerated at a target deceleration of a predetermined magnitude set on the basis of the number of times of depressing the operation switch. Consequently, even if the temperature and degree of wear of a friction material of the parking brake vary, the vehicle can be decelerated at the target deceleration at all times, whereby a stable braking effect which is not affected by the conditions of the friction material of the parking brake can be obtained. Moreover, since the magnitude of the target deceleration is set according to the number of times of depressing the operation switch, a deceleration required by the driver can be generated in an ensured fashion.